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October 2, 2017

**via E-mail**

Senior Director  
Spectrum Licensing and Policy Branch  
Innovation, Science, and Economic Development Canada  
235 Queen Street, 6<sup>th</sup> Floor  
Ottawa, ON K1A 0H5

Dear Senior Director,

**Re: Gazette Notice SLPB-005-17, Consultation on a Technical, Policy and  
Licensing Framework for Spectrum in the 600 MHz Band**

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Attached are the Comments of Saskatchewan Telecommunications (SaskTel), in response to the *Canada Gazette* notice regarding the above referenced consultation.

SaskTel thanks the Department for this opportunity to provide comments and input into the consultation process.

Sincerely,

A handwritten signature in blue ink, appearing to be "W.N. Beckman", written in a cursive style.

W.N. (Bill) Beckman  
Senior Director - Regulatory Affairs  
RAB/nb

Attachment

# SaskTel Comments:

Gazette Notice SLPB-005-17

Consultation on a Technical, Policy and  
Licensing Framework for Spectrum in  
the 600 MHz Band

October 2, 2017

## EXECUTIVE SUMMARY

1. The following is a summary of SaskTel's submission in response to Gazette Notice SLPB-005-17 *Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band* ("the Consultation").
2. This consultation is timely. It is appropriate for the Department to move ahead with the development of the policies and a licensing framework for auctioning the 600 MHz band spectrum.

### **Supporting Rural Deployment and Competition:**

3. Supporting competition in the wireless market is important. But competition can be choked by rules intended to foster it. In Saskatchewan, there is an economic limit to the number of viable competitors the market can sustain. Unlike many other places in Canada there are four competitive, engaged wireless carriers operating in Saskatchewan, the three national majors and SaskTel. Review any recent media commentary on cellular service prices and it is obvious that Saskatchewan has the lowest prices mixed with the best service offerings in the country. The government's goal of lower prices and better service through four carriers has been accomplished in Saskatchewan as evidenced by these prices and services. In Saskatchewan, SaskTel is the strong, vibrant competition government policy has been trying to create elsewhere in Canada. But some of the rules proposed in the Consultation would put SaskTel's access to spectrum, at risk.
4. Policy putting valuable rural service spectrum in the hands of non-facilities based telecommunications providers only serves to distort a very viable market while jeopardizing the quality of service rural Saskatchewan will receive. The policy priority should be supporting the most logical and effective deployment of the spectrum for the benefits of the provincial residents, not the facilitation of a fifth competitor in Saskatchewan. In pursuit of the Government of Canada's goal of four viable competitors, it would be highly inappropriate to take any policy steps to aid a fifth competitor, which would clearly be to the detriment of the regional competitor and impede their efforts to provide quality service in challenging rural areas.

5. Auction formats that limit rather than improve distribution of spectrum among infrastructure operators, will have a very detrimental impact on wireless broadband service delivery in rural areas. For that reason, ISED's proposal to set aside 30 of the 70 MHz in the 600 MHz band for smaller regional operators is the proper approach. This is a fair compromise that will achieve two of the principal policy goals namely; a) supporting regional operators and new entrants as they compete with national carriers, all to the benefit of the consumers both in terms of prices and services, and b) optimizing the proceeds to the government from the auction realized from both the set-aside and open bidding 600 MHz spectrum blocks.
6. If a new competitor in Saskatchewan intends to build out a mobile network in the province then it can and should have the option to pursue the 40 MHz blocks of non-set-aside spectrum in this auction. The 40 MHz of open bidding spectrum will still provide all bidders, including national carriers, the chance to acquire a significant amount of 600 MHz band spectrum. Even portions of the 40 MHz of open bidding blocks are material amounts that can be deployed to serve the low band spectrum needs of any established carrier, supplementing other spectrum holdings.
7. Clearly, eligibility to bid on set-aside spectrum based solely on the generic criteria of being a commercial telecommunications service provider is too broad for the purposes of this auction. Bidders in the auction should be fully capable of deploying the spectrum they acquire, and not purely speculators. SaskTel has already experienced price inflation for auctioned spectrum where the price paid by SaskTel for its 700 MHz licence was overvalued because of bids made by a pure speculator. Allowing this to happen again would be damaging to the prices that SaskTel can offer customers: high spectrum costs, i.e. input costs, must eventually raise consumer prices.
8. The 600 MHz spectrum band plan is designed to be used in a mobile wireless network and as such, the definition of a set-aside eligible bidder should be limited to companies that are facilities-based mobile wireless carriers in the license area of interest, and that are actually using mobile wireless spectrum and operating a mobile network, therefore making them capable of deploying the 600 MHz spectrum being offered. It is unlikely that a telecommunications carrier not already offering mobile wireless service elsewhere would initially launch a mobile wireless service in a small

market such as Saskatchewan that already has four fully competitive service providers. Therefore, defining a set-aside eligible bidder as a telecommunications provider already operating a mobile wireless network would be the best and probably the only way that such valuable set aside spectrum will be deployed in Saskatchewan. Rules do not have to be the same for each territory, rather, the rules should be adjusted to reflect the realities in different license areas.

**Auction Formats:**

9. SaskTel has examined the rules and bidding processes for the various auction format options being proposed by the Department. This includes the following options:
  - Combinatorial Clock Auction (CCA) format with Weak Axiom of Revealed Preference (WARP) based activity rule
  - CCA format with Generalized Axiom of Revealed Preference (GARP) based activity rule
  - Enhanced Combinatorial Clock Auction (ECCA) format
10. The CCA format with WARP-based activity rules has been used before and should be used again given familiarity and outcomes. The flexibility offered by the GARP-based activity rule and further encouragement to bid according to true preferences in all rounds outweighs the additional constraints that would be imposed under the proposed rules. As will be discussed, the CCA format with a GARP-based activity rule should be preferred to the WARP-based activity rule.
11. The proposed Enhanced Combinatorial Clock Auction (ECCA) format as described in Annex C of the Consultation may represent some advances from the CCA format, but very serious concerns regarding price determination remain. Among other considerations, given the desirability, volume, and importance of the 600 MHz spectrum being auctioned, now is not the time to be testing new rules.
12. To ensure a fair auction, bidders should receive information on their potential second-price-based payments throughout the allocation stage and especially at the end of the clock phase. As proposed, bidders would be informed of the supplementary bid amount that would be necessary to guarantee winning their desired package of spectrum. The implementation of a mechanism offering a guarantee that bidders

could win their licence package in the supplementary round is important for regional operators that are only interested in a small number of licences. As seen in previous CCA auction formats used by the Department, there is a high risk that a bid on a large nationally based package of licences could knock out a smaller bid on a smaller number of licences in the supplementary round.

13. If our reading of the proposed ECCA rules is correct, the proposed changes on final price determination in the supplementary round could result in prices that do not reflect the opportunity cost of the spectrum licenses and hence are contrary to the spirit of the “second price” rule that the CCA format is built on. Despite the claim that second price rule would be implemented, we expect the final determination of prices to be higher and possibly close to first-price rule pricing.
14. Moreover, these flaws in the price determination rules for the ECCA would create great gaming opportunities, as a bidder who wants to game these flaws in the pricing formula and prey on other bidders could do so with little risk for themselves, and artificially push prices even higher for other licence winners.
15. The ECCA auction format as described in Annex C of the Consultation should not be used for the 600 MHz spectrum auction. The ECCA auction format rules for price determination do not reflect true opportunity costs, and in fact could easily invite gaming by bidders. There are obvious flaws in the ECCA format rules. Implementation of the ECCA auction format rules would result in an inordinately complex auction for both the bidders and the auction administrators. The ECCA auction format is also an untested auction design, having never been implemented in any other jurisdiction. The 600 MHz spectrum auction is too important to risk using an untested auction format.
16. The guarantees of the ECCA format should be added to the options described in Annexes A and B because they are important for regional operators, but has very serious reservations about the resulting increases in final price determinations.

**Comments on Other Questions:**

17. The following proposals from the Consultation are appropriate for the upcoming auction:

- To limit transferability of the set-aside spectrum for five years, and to the proposed conditions of licence related to transferability and divisibility
  - To auction the set-aside spectrum in three separate 5+5 MHz blocks
  - To use Tier 2 service areas for the licensing process, except for Tier 4 areas in the Yukon, N.W.T., and Nunavut
  - To use generic licences in the auction process
  - To categorize all blocks won by set-aside eligible bidders as set-aside spectrum
  - The use of anonymous bidding, and the proposed information to be provided to bidders during the clock rounds
  - The proposed structure of the assignment round, including the proposed assignment of contiguous blocks for winners of more than one block
  - The proposed rules for Affiliated and Associated Entities, and proposed rules to prohibit collusion
  - The proposal to issue licences for a 20-year term, and the proposed wording of the conditions of licence
  - Other conditions of licence as per section 11.4 of the Consultation
18. The proposed methodology for incrementing prices during the clock rounds would appear to support the Department's goals, but the Department should start with relatively large bid increments and only begin to reduce them as the auction moves on and absolute prices are higher, rather than the typical progression of increasing percentages in later rounds to speed the close of the auction.
19. Contemplation of new conditions of licence allowing for opportunistic spectrum access technologies to operate in the exclusively licensed 600 MHz spectrum being auctioned needs to be stopped now. Careful consideration must be given to all of the impacts of these licence conditions on existing networks, including impacts to customer experience and network investments. Full and thorough public consultations on opportunistic spectrum usage must be conducted prior to the introduction of any licence conditions allowing this new spectrum access model as such use could be extraordinarily disruptive. Operators acquiring mobile spectrum

have, until now, bought that spectrum with conditions of licence providing exclusive spectrum access. Expectations among bidders for 600 MHz spectrum will be the same. The prices bid and paid for such exclusive licences are paid expecting exclusivity for the entire term of the licence. The potential introduction of future conditions of licence in the middle of the licence term demoting that exclusive spectrum access to some form of shared access will immediately devalue the spectrum, resulting in serious financial loss and risk to the licence holders. Introducing the spectre of shared usage prior to the 600 MHz auction will create uncertainty and devalue spectrum unless certainty regarding exclusivity can be provided.

20. Proposed conditions of licence involving deployment requirements are less than ideal. The 600 MHz spectrum is low band spectrum best suited for rural deployments, and we believe that the deployment requirements should be modified to shift the deployment focus into more rural areas, and in a time frame earlier than 20 years. By increasing these deployment obligations, more rural customers will benefit from implementation of this far-reaching spectrum.



## INTRODUCTION

21. Saskatchewan Telecommunications (“SaskTel” or “the Company”) is pleased to provide this response to Gazette Notice SLPB-005-17 *Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band* (“the Consultation”).
22. SaskTel's detailed responses to the questions posed in the Consultation are below. The section numbering of this document corresponds to the section numbering of the Consultation. Failure to address any particular issue or item, or the Comments made by any other party, should not be construed as agreement with those Comments where such agreement is not in the interests of SaskTel.

## SASKTEL RESPONSE TO THE CONSULTATION ON A TECHNICAL, POLICY AND LICENSING FRAMEWORK FOR SPECTRUM IN THE 600 MHz BAND

### 6. *Pro-competitive measures*

**Q1A—ISED is seeking comments on its proposal to implement a set-aside as a pro-competitive measure in the auction process for the 600 MHz band.**

23. Recent spectrum auctions, beginning with the 700 MHz auction held in 2014, reveal a trend towards the concentration of premium spectrum by the three major national carriers. In Saskatchewan, we've seen the consequences of open and fully competitive auctions using either the sealed bid or CCA format and allowing for national package bidding. These auction formats prevent the regional carriers from winning any meaningful spectrum, and in Saskatchewan the result is the accumulation of spectrum by non-facilities based carriers who have no plans or physical means to deploy the spectrum.
24. In this province, the principal consideration for policy makers should be supporting the service providers' efforts to meet the network capacity and coverage challenges in serving rural and deep rural areas of Saskatchewan. The set aside, as proposed in the consultation, provides an equitable approach to balance the regional carriers' need for premium spectrum with an open bidding auction that doesn't exclude the national carriers from acquiring some, but not all, of the available spectrum.

**Q1B—ISED is seeking comments on its proposal to set aside 30 MHz of spectrum in the 600 MHz band for eligible entities and to have open bidding (no pro-competitive measures) on the remaining 40 MHz in the band.**

25. Auction formats that limit rather than improve distribution of spectrum among infrastructure operators, will have a very detrimental impact on wireless broadband service delivery in rural areas. For that reason, ISED’s proposal to set aside 30 of the 70 MHz in the 600 MHz band is appropriate. This is a fair compromise that will achieve two of the principal policy goals namely; a) supporting regional operators and new entrants as they compete with national carriers, all to the benefit of the consumers both in terms of prices and services, and b) optimizing the proceeds to the government from the auction realized from both the set-aside and open bidding 600 MHz spectrum blocks.

26. The 40 MHz of open bidding spectrum provides all bidders, including national carriers, the chance to acquire a significant amount of 600 MHz band spectrum. Even portions of the 40 MHz of open bidding blocks are material amounts that can be deployed to serve the low band spectrum needs of any established carrier, supplementing other spectrum holdings.

**Q1C—ISED is seeking comments on its proposal to limit the eligibility criteria to bid on set-aside spectrum to those registered with the CRTC as facilities-based-providers, that are not national incumbent service providers, and that are actively providing commercial telecommunication services to the general public in the licence area of interest, effective as of the date of application to participate in the 600 MHz auction.**

27. The Department has proposed in the Consultation:

that eligibility to bid on the set-aside spectrum be limited to those registered with the CRTC as facilities-based-providers, that are not national incumbent service providers, and that are actively providing commercial telecommunication services to the general public in the licence area of interest, effective as of the date of application to participate in the 600 MHz auction.<sup>1</sup>

28. Clearly, the criteria of a commercial telecommunications service provider are too broad for the purposes of this auction. Practically any company, for example a purely

<sup>1</sup> The Consultation, paragraph 29

wireline-based service provider, would be eligible if these criteria stand. SaskTel has already experienced the impact on prices as a result of speculators being allowed to bid, as the price SaskTel paid in the 700 MHz auction was set by bids from a pure speculator. To allow this to happen again is wrong when one considers that SaskTel, as the winner of the spectrum needs to spend large sums of money to deploy the spectrum, which was effectively overvalued by a pure speculator.

29. The 600 MHz spectrum band plan is designed to be used in a mobile wireless network and as such, the definition of a set-aside eligible bidder should be limited to companies that are facilities-based mobile wireless carriers in the license area of interest, and that are actually using mobile wireless spectrum and operating a mobile network, therefore making them capable of deploying the 600 MHz spectrum being offered. It is a major investment to launch a mobile wireless network, both in terms of core network and radio infrastructure. It is unlikely that a telecommunications carrier not already offering mobile wireless service elsewhere would initially launch a mobile wireless service in a small market such as Saskatchewan that already has four fully competitive service providers. Therefore, defining a set-aside eligible bidder as a telecommunications provider already operating a mobile wireless network would be the best and probably the only way that such valuable set-aside spectrum will actually be deployed in Saskatchewan. Even if the Department is unwilling to impose this sort of rule nationally, it should be imposed in regions where there is a strong fourth carrier, such as Saskatchewan and Quebec.
30. The merits of competition in the wireless market are undeniable: lower prices and more consumer options. In Saskatchewan, however, there is an economic limit to the number of viable competitors this provincial market can sustain. There are four engaged, competitive wireless carriers operating in Saskatchewan, the three national majors and SaskTel. Review any recent media commentary on cellular service prices and it is obvious that Saskatchewan has the lowest prices mixed with the best service offerings in the country. The government's goal of lower prices and better service through four carriers has been accomplished in Saskatchewan as evidenced by these prices and services. In Saskatchewan, SaskTel is the strong, vibrant competition government policy has been trying to create elsewhere in Canada. But some of the rules proposed in the Consultation would put SaskTel's access to spectrum at risk.

31. Policy putting valuable rural service spectrum in the hands of non-facilities-based telecommunications providers only serves to distort a very viable market while jeopardizing the quality of service rural Saskatchewan will receive. The policy priority should be supporting the most logical and effective deployment of the spectrum for the benefits of the provincial residents, not the facilitation of a fifth competitor in Saskatchewan. In pursuit of the Government of Canada's goal of four viable competitors, it would be highly inappropriate to take any policy steps to aid a fifth competitor, which would clearly be to the detriment of the regional competitor and impede their efforts to provide quality service in challenging rural areas.
32. Another market entrant would be detrimental for regional competitors who have helped deliver high quality, yet more affordable service in places like Saskatchewan, Quebec, and Manitoba. If a new competitor in Saskatchewan intends to build out a mobile network in the province then it can and should have the option to pursue the 40 MHz blocks of non-set-aside spectrum in this auction, however, it should not have access to spectrum that can be used to support already extant fourth carriers.
33. As the Department is concerned that not all regions have attained the government's preferred number of four viable competitors, they can continue with their proposal that would allow non-wireless mobile carriers to bid on set-aside spectrum in those regions. Clearly the opportunity exists for the Department to tailor the eligibility rules for the set-aside by region. To use one set of rules for the entire country on an issue this substantive would be to punish carriers like SaskTel, VideoTron, and EastLink for already having successfully established themselves in the market by requiring them to compete as one of the Big Three, rather than as the fourth carrier in a market.

**Q1D—ISED is seeking comments on its proposal to limit the transferability of the set-aside spectrum for the first five years of the licence term.**

34. The Department's proposal to limit the transferability of the set-aside spectrum for the first five years of the licence is appropriate, as per the wording in section 11.2 paragraph 131 of the Consultation.

For the first five years of the licence term from the original date of issuance, a set-aside licence obtained by an entity eligible for set-aside spectrum during the licensing process (i.e. auction) is not transferable to a set-aside-ineligible entity. At all times during the licence term, a

licence obtained by an entity eligible for set-aside spectrum during the licensing process is transferable to another entity that was eligible for set-aside spectrum, subject to ISED's approval.

**Q1E—ISED is seeking comments on its proposal to auction the set-aside spectrum as three separate paired blocks of 5+5 MHz.**

35. The proposal to auction the set-aside spectrum as three separate paired blocks of 5+5 MHz is proper in the circumstances. This provides flexibility for bidders in the auction. Such an allocation of the set-aside blocks is appropriate as long as the Department intends to assign contiguous blocks of spectrum to bidders who win more than one block in a service area, as per our response to Q 6 a) of the Consultation.

## **7. Licence Areas**

**Q2—ISED is seeking comments on its proposal to use Tier 2 service areas across the country, except in the three Territories (Yukon, Northwest Territories and Nunavut) where Tier 4 service areas would apply.**

36. The Department's proposal to use Tier 2 service areas for the 600 MHz auction licensing process across the country, except in the Yukon, Northwest Territories and Nunavut where Tier 4 service areas would apply is appropriate for this auction. The Tier 2 based service areas are most appropriate given the range and propagation characteristics of this low band spectrum.

## **9. Auction format and rules**

### **9.2 Proposed auction attributes**

#### **9.2.2 Generic licences**

**Q3—ISED is seeking comments on:**  
**a) the proposal to use generic licences; and**  
**b) the proposal to categorize all blocks won by set-aside-eligible bidders as set-aside blocks.**

37. Generic licenses for the 600 MHz auction licensing process are appropriate. The seven paired blocks of 600 MHz spectrum are very similar, and we believe they are very comparable in value.

38. The Department’s proposed categorization of all blocks won by a set-aside eligible bidder in a given service area as set-aside blocks is appropriate. Although it is understood that this proposed rule would restrict licence transfers and divisibility in the first five years, the negative impact on the secondary spectrum market would be manageable because the effects are only temporary under the proposed five-year time limit.

**9.2.3 Anonymous bidding**

**Q4—ISED is seeking comments on:**  
**a) the use of anonymous bidding during the auction; and**  
**b) the information that will be disclosed to bidders during the clock rounds, as described in annex A (which would also apply to the CCA with a modified activity rule set out in annex B) and annex C.**

39. Anonymous bidding during the auction is appropriate.

40. Information disclosure during the clock rounds, as currently described in Consultation Annexes A, B, and C is appropriate, on the understanding that the actual information to be presented to bidders in the clock rounds will depend on which auction format is chosen by the Department.

**9.3 Structure and benefits of auction format options**

**Q5—ISED is seeking comments on:**  
**a) The advantages and disadvantages of the three auction formats being considered for the 600 MHz auction:**  
     **i. Combinatorial clock auction, using the WARP-based activity rule (annex A);**  
     **ii. Combinatorial clock auction, using the GARP-based activity rule (annex B);**  
     **iii. Enhanced combinatorial clock auction (annex C).**  
**b) Where there is a preference for one of the options, respondents are asked to provide a rationale and explanation.**

41. As noted by the Department, the previous 700 and 2500 MHz spectrum auctions used auction rules very similar to the proposed CCA auction with WARP-based activity rules as proposed in Annex A of the Consultation. SaskTel is familiar with these rules, along with other 700 MHz and 2500 MHz auction participants. If the CCA with WARP-based activity rule format is selected by the Department, it would be better than the ECCA, but CCA with the GARP-based activity rule would be preferred.

42. There are benefits to using the CCA auction format with the GARP-based activity rule. The flexibility offered by the GARP-based activity rule and further encouragement to bid according to true preferences in all rounds would outweigh the additional constraints that would be imposed under the proposed rules. Therefore, the CCA format with a GARP-based activity rule instead of the WARP-based activity rule should be preferred.
43. While the proposed Enhanced Combinatorial Clock Auction (ECCA) format as described in Annex C of the Consultation has some features that recommend it, the format also has very serious flaws regarding price determination.
44. The GARP-based activity rule is preferred versus the WARP-based activity rule. Bidders should also receive information on their potential second-price-based payments throughout the allocation stage and especially at the end of the clock phase. As proposed, bidders would be informed of the supplementary bid amount that would be necessary to guarantee winning their desired package of spectrum. This could reduce the uncertainty bidders face regarding the actual amount the bidder would pay under the second price rule, and therefore reduce uncertainties in bidding strategies and budgeting.
45. There should be a guarantee that bidders can win their licence package in the supplementary round. Such a guarantee is important for regional operators that are only interested in a small number of licences, because as seen in previous CCA auction formats used by the Department, there is a high risk that a bid on a large nationally based package of licences could knock out a smaller bid on a smaller number of licences in the supplementary round.
46. The guarantees of winning licence packages in the supplemental round as described in the ECCA format should be added to the options described in Annexes A and B because the guarantees are important for regional operators, but the inclusion of those options may lead to resulting increases in final price determinations.
47. However, if our understanding of the proposed ECCA rules is correct, the proposed changes on final price determination in the supplementary round could result in prices that do not reflect the opportunity cost of the spectrum licenses and hence are contrary to the spirit of the “second price” rule that the CCA format is built on. Despite

the claim that second price rule would be implemented, we expect the final determination of prices to be higher and possibly close to first-price rule pricing. ECCA prices appear to be based on the maximum combination of bids even if such a combination of bids would not have been made by other bidders. For example, a bidder might have a budget constraint of 50 and bid for two licenses until the clock increases above 25. Then the bidder drops to a single license as the clock increases. When the clock hits 50, the bidder demands a single license and drops demand to zero when the clock goes to 51. For price calculation for other bidders, the ECCA would calculate that the bidder was willing to pay 50 for one license and 25 more for a second license even though it would never have been willing (or able) to pay 75 for two licenses. As a result, the ECCA would overstate the opportunity cost of another bidder winning two licenses and charge it 75 rather than the true opportunity cost of 50.

48. This over-charging of bidders could be substantial. For example, if a bidder with a budget of 100 bids for the largest subset of 7 licenses in an area that it can afford within this budget, and ends up being outbid by other bidders, then even though the correct opportunity cost is just 100, the ECCA formula would erroneously imply opportunity cost of 259.29 ( $100/7 + 100/6 + 100/5 + 100/4 + 100/3 + 100/2 + 100/1$ ). That is over 250% of the true cost.
49. Since we know from previous auctions that many bidders are materially budget constrained, this problem with the ECCA pricing rule is likely to be pervasive. Moreover, it would create great gaming opportunities: a bidder with a budget of only 100 could cause others to pay over 250 for their licenses, even if it bids just in one geographical area and can achieve it without the risk of ever paying more than 100 for any package it could win. And a bidder who wants to game this flaw in the pricing formula and prey on other bidders with little risk to itself, could bid in multiple areas and artificially push prices even higher.
50. The ECCA auction format as described in Annex C of the Consultation should not be used for the 600 MHz spectrum auction. The ECCA auction format rules for price determination do not reflect true opportunity costs, and in fact could easily invite gaming by bidders. Our examination has found obvious flaws in the ECCA format rules. Implementation of the ECCA auction format rules would result in an inordinately complex auction for both the bidders and the auction administrators. The ECCA



auction format is also an untested auction design, having never been implemented in any other jurisdiction. The 600 MHz spectrum auction is too important to risk using an untested auction format.

#### **9.4 Structure of the assignment stage**

**Q6—ISED is seeking comments on:**

- a) The proposal that winners of more than one block in a single service area be assigned contiguous blocks; and**
- b) The proposed structure of the assignment stage, including the order of the assignment rounds and the combination of service areas into a single assignment round.**

51. Contiguous block assignment, as proposed, to winners of more than one block in each service area is both appropriate and desirable. This allows the licence winner to fully leverage the contiguous spectrum and provide higher bandwidth services most efficiently to the direct benefit of the consumer.

52. The structure of the proposed assignment stage is appropriate.

#### **9.5 Increasing prices in the clock rounds**

**Q7—ISED is seeking comments on the proposed methodology for incrementing prices during the clock rounds, as described in annex A.**

53. The proposed methodology and increments for price increases during the clock rounds as described in Annex A and section 9.5 of the Consultation is appropriate to ensure an efficient and timely auction. The intention of the Department to ensure that the clock round price of the set-aside spectrum blocks does not exceed the price of the open bidding blocks in each service area is also appropriate. The Department should start with relatively large bid increments and to reduce them as the auction moves on and absolute prices are higher, rather than the typical progression of increasing percentages in later rounds to speed the close of the auction. With 14 generic licenses, the auction should not take excessively long.

## **10. Bidder participation—Affiliated and associated entities**

### **10.1 Affiliated entities**

### **10.2 Associated entities**

**Q8—ISED is seeking comments on the proposed Affiliated and Associated Entities rules that would apply to bidders in the 600 MHz auction.**

54. The proposed rules regarding participation of Affiliated and Associated entities in the 600 MHz auction licensing process are appropriate.

### **10.4 Prohibition of collusion and other communication rules**

**Q9—ISED is seeking comments on the proposed rules prohibiting collusion and other communication rules, which would apply to bidders in the upcoming 600 MHz auction.**

55. The proposed rules prohibiting collusion and other communication rules that would apply to 600 MHz spectrum auction bidders are appropriate.

## **11. Conditions of licence for spectrum in the 600 MHz band**

### **11.1 Licence term**

**Q10—ISED is seeking comments on its proposal to issue spectrum licences in the 600 MHz band with a 20-year licence term and the proposed wording of the condition of licence above.**

56. The proposal to issue 600 MHz spectrum licences with 20 year terms, and the proposed wording of the condition of licence as given in section 11.1, paragraph 121 of the Consultation are both appropriate.

57. Opportunistic spectrum access mechanisms, as contemplated in the Consultation, are not appropriate now and may disrupt the auction and the value of 600 MHz spectrum. While opportunistic spectrum access may be developed and become desirable in the future, such contemplated use creates uncertainty, considerable cost, and a devaluation of 600 MHz spectrum with non-exclusive licenses right now. Only full and thorough public consultation on this issue alone, conducted prior to the introduction of any licence conditions to allow any form of opportunistic spectrum access, should lead to such use. Now is not the time to be contemplating such a change to licensing language. Spectrum sharing and efficient use of spectrum may become more critical

in the future, but current and contemplated technology cannot overcome interference issues. The Department must give careful consideration to the impacts of proposed licence conditions on existing networks, including impacts to customer experience and network investments, and that consideration cannot be given in the 600 MHz auction context.

58. Furthermore, operators acquiring mobile spectrum do so based on the conditions of licence providing exclusive spectrum access. The prices bid and paid for such exclusive licences during an auction are based on that exclusivity for the entire term of the licence. The potential introduction of future conditions of licence in the middle of the licence term demoting that exclusive spectrum access to some form of shared access will immediately devalue the spectrum, resulting in serious financial loss and risk to the licence holders.

### ***11.2 Licence transferability and divisibility***

**Q11—ISED is seeking comments on the proposals on the condition of licence related to transferability and divisibility, and the proposed wording above.**

59. The proposed conditions of licence related to transferability and divisibility, including the proposed wording for the conditions of licence given in section 11.2, paragraph 131 of the Consultation are appropriate.

### ***11.3 Deployment requirements***

**Q12—ISED is seeking comments on the proposed deployment condition of licence as stated above.**

60. Proposed deployment conditions of licence are less than ideal, including the proposed wording for the condition of licence given in section 11.3, paragraph 137 of the Consultation, and the proposed 5-year, 10-year, and 20-year deployment requirements as given in Annex F of the Consultation. The 600 MHz spectrum is low band spectrum best suited for rural deployments as it propagates further than other high band spectrum currently in use. The proposed deployment conditions do not encourage or promote rural deployment, a key goal of the Department, because deployment requirements only require urban deployment in the first years of the licence term.

61. Deployment requirements should be modified to shift the deployment focus into more rural areas, and for this focus to occur earlier than 20 years. In addition, the 5-year deployment requirement for the Saskatchewan Tier 2 service area should be increased to 40%. This would be a more reasonable target for a wireless operator.

#### **11.4 Other conditions of licence**

**Q13—ISED is seeking comments on proposed conditions of licence outlined in annex G that would apply to licences issued through the proposed auction process for spectrum in the 600 MHz band.**

62. The proposed conditions of licence outlined in Annex G of the Consultation for licences issued through the proposed 600 MHz spectrum auction licensing process are appropriate.

63. However, there are some modifications to the proposed licence conditions meant to help reduce the administrative burdens on both licence holders and the Department which could be implemented. Adjustments to the licence conditions on annual reporting would help reduce administrative burdens both for the Department and licence holders. In the Consultation, the proposed conditions of licence include requirements for licence holders to submit an annual report for every spectrum licence. Said annual report includes corporate annual reports and financial statements, along with detailed deployment reports on the implementation of each spectrum licence. For those operators currently required to adhere to the research and development (R&D) investment requirements, the annual report also requires submission of audited financial statements and a detailed R&D expenditure report. As wireless networks grow and evolve, and the number of licences held by operators increases, the administrative burdens to create and manage these reports multiplies as well.

64. In 2012, the Treasury Board of Canada launched the “Red Tape Reduction Plan” (the Plan) – a plan that remains active to this day. The Plan is the product of business community input to a year-long commission, targeting specific irritants to businesses and the systemic barriers that unnecessarily frustrate and burden Canadian business with additional delays, costs and bureaucracy. As part of the plan, the Commission called on regulators to reduce the regulatory burden on business. Thirty-one initiatives identified to:

- i. Streamline regulatory approval processes;
- ii. **Reduce reporting requirements and information demands; and**
- iii. Improve the coordination of compliance and enforcement activities.

65. Consistent with the Plan's objectives, the Department should consider moving from an annual reporting process to an "on request" model where the Department would request each licence holder to provide these reports such as the deployment updates only when required by the Department. Such a reporting mechanism will reduce the administrative burdens on both the Department and spectrum licence holders, while still preserving the ability to maintain timely access to the information required by the Department to manage the spectrum licences.

## **12 Auction process**

### **12.2 Opening bids**

**Q14—ISED is seeking comments on the proposed opening bids as presented in table 1.**

66. SaskTel has no comment on the opening bids at this time.

### **12.3 Proposed eligibility points for the 600 MHz spectrum auction**

#### **12.4 Pre-auction deposits**

**Q15—ISED is seeking comments on the proposed eligibility points for spectrum licences in the 600 MHz as outlined in table 2, and pre-auction deposits as outlined above.**

67. SaskTel has no comment on the eligibility points and pre-auction deposits at this time.

## **14. Licence renewal process**

**Q16—ISED is seeking comments on the proposed renewal process for spectrum licences in the 600 MHz band.**

68. The proposed licence renewal process for 600 MHz licences is appropriate.

## CONCLUSION

69. SaskTel has reviewed the Consultation with the Department's proposals for the Technical, Policy and Licensing Framework for the 600 MHz spectrum band, including proposed auction formats and rules, licensing processes, conditions of licence, and proposals to support competition in the wireless market.
70. SaskTel, as a regional operator, has provided the Department input, suggestions, and recommendations on the questions raised in the Consultation.
71. SaskTel acknowledges the merits of supporting competition in the wireless market of Saskatchewan, but with four fully competitive wireless carriers already operating in Saskatchewan, the government's goal of lower prices and better service has been accomplished in Saskatchewan. There is an economic limit to the number of carriers that can be supported in this provincial market, and it is not appropriate for the Department to impose policies to aid a fifth carrier in such a small market. Such measures would distort the market while jeopardizing the quality of service Saskatchewan residents will receive. Subsidies for new entrants in markets such as Saskatchewan would be directly detrimental to smaller regional operators striving to enhance services in rural areas because of the artificial market distortions created by policies tailored for other parts of the country.
72. The proposed set-aside of 30 MHz of spectrum in the auction provides a fair compromise to help achieve the principal policy goals of supporting small regional operators compete with national carriers, and will optimize the proceeds from the auction.
73. However, the only way the set-aside spectrum will actually be deployed in Saskatchewan is by defining set-aside eligible bidders as those wireless service providers that are fully capable of deploying the spectrum. Set-aside eligible spectrum should be limited to facilities-based mobile wireless carriers in the licence area of interest, and that are using mobile wireless spectrum and operating a mobile network. This would be the best and probably the only way that such valuable set-aside spectrum will be deployed in Saskatchewan.

74. If a new competitor in Saskatchewan intends to build out a mobile network in the province then it can and should have the option to pursue the 40 MHz blocks of non-set-aside spectrum in this auction, however, it should not have access to spectrum that can be used to support already extant fourth carriers.
75. After our review of the two CCA auction format options with WARP-based and GARP-based activity rules as presented by the Department in the Consultation, the CCA format with GARP-based activity rule is preferred to be used for the auction. The flexibility of the GARP-based activity rule would outweigh the additional constraints that would be imposed.
76. It is important for regional operators such as SaskTel that the guarantees for supplemental round bidding described in the ECCA format be added to the CCA options described in Annexes A and B, although their inclusion may lead to resulting increases in final price determinations.
77. Bidders should be provided information on their potential second-price-based payments throughout the allocation stage and especially at the end of the clock phase. As proposed, bidders would be informed of the supplementary bid amount that would be necessary to guarantee winning their desired package of spectrum. There should be a mechanism to offer a guarantee that bidders could win their licence package in the supplementary round. Such a guarantee is important for regional operators that are only interested in a small number of licences, because as seen in previous CCA auction formats used by the Department, there is a high risk that a bid on a large nationally based package of licences could knock out a smaller bid on a smaller number of licences in the supplementary round.
78. The ECCA auction format as described in Annex C of the Consultation should not be used for the 600 MHz spectrum auction. The ECCA auction format rules for price determination do not reflect true opportunity costs, and in fact could easily invite gaming by bidders. Our examination has found obvious flaws in the ECCA format rules. Implementation of the ECCA auction format rules would result in an inordinately complex auction for both the bidders and the auction administrators. The ECCA auction format is also an untested auction design, having never been implemented in

any other jurisdiction. The 600 MHz spectrum auction is too important to risk using an untested auction format.

79. The 600 MHz spectrum is best suited for rural deployments, and the proposed deployment requirements should be focused into more rural areas, and in a shorter time frame.
80. Opportunistic spectrum access mechanisms, as contemplated in the Consultation, are not appropriate now and may disrupt the auction and the value of 600 MHz spectrum. While opportunistic spectrum access may be developed and become desirable in the future such contemplated use creates uncertainty, considerable cost, and a devaluation of 600 MHz spectrum with non-exclusive licenses right now. Only full and thorough public consultation on this issue alone, conducted prior to the introduction of any licence conditions to allow any form of opportunistic spectrum access, should lead to such use. The Department must give careful consideration to the impacts of proposed licence conditions on existing networks, including impacts to customer experience and network investments, and that consideration cannot be given in the 600 MHz auction context.
81. SaskTel is pleased to have had the opportunity to provide our inputs and comments to the important issues raised in this Consultation, and hopes that our submission will provide a fuller view of these issues to the Department.